



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION 4**

**Science and Ecosystem Support Division  
Field Services Branch  
980 College Station Road  
Athens, Georgia 30605-2720**

September 19, 2017

**4SESD-FSB**

**MEMORANDUM**

**SUBJECT:** Milliken Chemical Dewey Plant  
Case Development Investigation Evaluation  
Quality Assurance Project Plan  
SESD Project ID - 17-0496

**FROM:** Mike Neill, Physical Scientist *M Neill*  
Field Services Branch  
Science and Ecosystem Support Division

**THRU:** Mike Bowden, Chief *M Bowden*  
Enforcement Section  
Science and Ecosystem Support Division

**TO:** Héctor Danois, RCRA Inspector  
Enforcement and Compliance Branch  
Resource Conservation & Restoration Division (RCRD)

Attached is the Quality Assurance Project Plan (QAPP) for the investigation that will be conducted at the Milliken Chemical Dewey Plant in Inman, South Carolina on September 26, 2017. If you have any questions concerning the investigation, please call me at (706) 355-8614 or email me at [neill.mike@epa.gov](mailto:neill.mike@epa.gov).

Attachment:



**Quality Assurance Project Plan**  
**U.S. Environmental Protection Agency**  
 Science and Ecosystem Support Division  
 980 College Station Road  
 Athens, GA 30605

SESD Project ID No.: 17-0496  
 SESD Category 3 QAPP

<b>SECTION A: Project Planning Elements</b>		
<b>A1. Title (Project Name):</b>	Milliken Chemical Dewey Plant	
Project Location:	1440 Campton Rd, Inman, SC 29349	
Project Requestor and Organization:	Héctor Danois, RCRA Inspector Enforcement and Compliance Branch (ECB) Resource Conservation and Restoration Division (RCRD)	
Project Leader's Name, Position and Organization:	Mike Neill, Physical Scientist Enforcement Section, Field Services Branch Science and Ecosystem Support Division (ES/FSB/SESD)	
Project Leader's Signature:		Date: 9-19-17
Technical Reviewer's Name and Position:	Art Masters, Environmental Scientist ES/FSB/SESD	
Technical Reviewer's Signature:		Date: 9/19/17
Section Chief's Name and Position:	Mike Bowden, Chief ES/FSB/SESD	
Section Chief's Signature:		Date: 9/19/17
<b>A2. Table of Contents</b>	N/A	
<b>A3. Distribution List</b>	Héctor Danois, RCRA Inspector Enforcement and Compliance Branch Resource Conservation and Restoration Division US Environmental Protection Agency, Region 4 Sam Nunn Atlanta Federal Center, 61 Forsyth Street Atlanta, GA 30303	
<b>A4. Project Personnel</b>	<b>Organization</b>	<b>Responsibilities</b>
Mike Neill	SESD	Project Leader
Art Masters	SESD	Safety Officer/Sample support
Marty Allen	SESD	Sample support



**Quality Assurance Project Plan**  
**U.S. Environmental Protection Agency**  
 Science and Ecosystem Support Division  
 980 College Station Road  
 Athens, GA 30605

SESD Project ID No.: 17-0496  
 SESD Category 3 QAPP

<p><b>A5. Problem Definition (Investigation Objectives and Background Information):</b></p>	<p>Milliken &amp; Company (Milliken) operates a chemical manufacturing facility at 1440 Campton Rd. in Inman, SC (Dewey Plant). The Dewey Plant operates under South Carolina Department of Health and Environmental Control (DHEC) Title V Permit (TV-2060-0001). Milliken has determined that the non-hazardous secondary material (NHSM) status applies for two secondary materials fired in boilers at the facility. In order for the boilers to remain classified as boilers and not as solid waste incineration units under the Commercial/Industrial Solid Waste Incinerators (CISWI) rule in 40 CFR 60, Subpart CCCC, the materials combusted must qualify as NHSM under 40 CFR Part 241, "Solid Wastes used as fuels or ingredients in combustion units," also known as the NHSM rule.</p> <p>In 2015, EPA revised regulations associated with the comparable fuels exclusion based on the court order to vacate the rule by the United States Court of Appeals for the District of Columbia Circuit.</p> <p>ECB has requested for SESD to sample the two waste streams (a tetramer liquid and a residue liquid) to determine if they exhibit a hazardous waste characteristic. Additionally, the ECB has requested for SESD to monitor the storage tanks and ancillary equipment for leaks of volatile organic emissions.</p>
<p><b>A6. Project Description:</b></p>	<p>An authoritative sampling investigation will be conducted with approximately two waste samples collected. Sample locations will be based on access to the storage tanks. Samples will be collected using the equipment in Section 4.2, Table 1, <i>Waste Sampling</i>, SESDPROC-302-R3). A Toxic Vapor Analyzer (TVA) will be used to survey the air surrounding the storage tanks and ancillary equipment by EPA Method 21 to determine if there are organic vapor leaks.</p> <p>Split samples will be offered to the Milliken representative for independent laboratory analyses.</p>
<p>Applicable regulatory information, action levels, etc.</p>	<p>Analytical results from the samples will be compared to the characteristic regulatory levels listed in 40 CFR 261.21 – 261.24.</p>
<p>Decision(s) to be made based on data:</p>	<p>The ECB will assess the data from this sampling investigation as well as their observations during their site visit to determine if any enforcement action is necessary.</p>



**Quality Assurance Project Plan**  
**U.S. Environmental Protection Agency**  
 Science and Ecosystem Support Division  
 980 College Station Road  
 Athens, GA 30605

SESD Project ID No.: 17-0496  
 SESD Category 3 QAPP

Field Study Date:	September 26, 2017
Projected Lab Completion Date:	November 17, 2017
Projected Final Report Completion Date:	December 17, 2017
<b>A7. Quality Objectives and Criteria</b> All samples/sample locations meet the field investigation objectives and purposes summarized in Sections A5 and A6 of this QAPP.	
<b>A8. Special Training/Certifications</b> SESD personnel participating in this investigation have OSHA 1910.120 Hazwoper training, and have demonstrated competency and proficiency in Waste Sampling, SESDPROC-302-R3 under SESD's ISO 17025 accreditation.	
<b>A9. Documents and Records</b> For this project, SESD will implement the following procedures pertaining to Documents and Records: <i>SESD Operating Procedure for Report Preparation and Distribution, SESDPROC-003-R5.</i> <i>SESD Operating Procedure for Logbooks, SESDPROC-010-R5.</i> <i>SESD Operating Procedure for Control of Records, SESDPROC-002-R6.</i>	

## SECTION B: Data Generation and Acquisition

### **B1. Sampling Design**

The following matrix lists the proposed numbers and types of samples to be collected.  
 Sample locations are described in Section A6 of this QAPP.

<b>Media:</b>	<b>Number of Samples:</b>	<b>Analyses:</b> (depending on the physical state of the waste, one or more of the following analyses may be conducted)
Waste	2	Volatile organic compounds (VOCs) scan and TCLP (if warranted), flash point and percent water.



**Quality Assurance Project Plan**  
**U.S. Environmental Protection Agency**  
 Science and Ecosystem Support Division  
 980 College Station Road  
 Athens, GA 30605

SESD Project ID No.: 17-0496  
 SESD Category 3 QAPP

**B2. Sampling Methods, General Procedures**

The following SESD field measurement and sampling procedures will be followed during this field study, as applicable:

*Global Positioning System, SESDPROC-110-R4*  
*Management of Investigation Derived Waste, SESDPROC-202-R3*  
*Field Equipment Cleaning and Decontamination, SESDPROC-205-R3*  
*Waste Sampling, SESDPROC-302-R3*

**B3. Sampling Handling and Custody**

All samples will be collected and handled according to the procedures listed in Section B2 of this QAPP. After collection, samples will be managed according to the following:

*SESD Analytical Support Branch Laboratory Operations and Quality Assurance Manual*,  
 Effective Date: April 28, 2017.  
*SESD Operating Procedure for Sample and Evidence Management, SESDPROC-005-R3.*  
*SESD Operating Procedure for Packing, Labeling and Shipping of Environmental and Waste Samples, SESDPROC-209-R3.*

**B4. Analytical Methods**

The following is a brief description of the analytical methods for this field investigation.

**SESD:**

Samples will be analyzed in accordance with the *SESD Analytical Support Branch Laboratory Operations and Quality Assurance Manual*, Effective Date: April 28, 2017.  
 VOCs scan – EPA method 8260C, TCLP – EPA method 1311, flash point – EPA method 1010, percent water – EPA method 9000.

**B5. Quality Control**

The following is a brief description of field and laboratory quality control measures to be implemented during this field investigation.

**Field:**

Field quality control measures will be in accordance with the *SESD Operating Procedure for Field Sampling Quality Control, SESDPROC-011-R5*, and/or *40 CFR Part 136.3, Table II-Required Containers, Preservation Techniques, and Holding Times* (most recent version), as applicable.  
  
 The number and type of field quality control samples proposed for this investigation are as follows:  
  
 The laboratory will designate one of the samples as the matrix spike for the scans. Split samples will be offered to the operator of the facility.



**Quality Assurance Project Plan**  
**U.S. Environmental Protection Agency**  
 Science and Ecosystem Support Division  
 980 College Station Road  
 Athens, GA 30605

SESD Project ID No.: 17-0496  
 SESD Category 3 QAPP

<b>Laboratory:</b>	Laboratory quality control measures for samples analyzed by the SESD laboratory are specified in the <i>SESD Analytical Support Branch Laboratory Operations and Quality Assurance Manual</i> , Effective Date: April 28, 2017.
<b>B6. Instrument/Equipment Testing, Inspection and Maintenance</b> All field measurement instruments and equipment will be maintained in accordance with the <i>SESD Operating Procedure for Equipment Inventory and Management</i> , SESDPROC-108-R5.	
<b>B7. Instrument/Equipment Calibration and Frequency</b> All field measurement instruments and equipment are calibrated according to the <i>SESD Operating Procedure for Equipment Inventory and Management</i> , SESDPROC-108-R5 and according to specific procedures included within the defined operating procedures for each instrument (see specific field measurement procedures in Section B2 of this QAPP).	
<b>B8. Inspection/Acceptance for Supplies and Consumables</b> All critical supplies and consumables for this field investigation are inspected and maintained in accordance with the following procedures:  <i>SESD Operating Procedure for Purchasing of Services and Supplies</i> , SESDPROC-015-R5. <i>SESD Operating Procedure for Equipment Inventory and Management</i> , SESDPROC-108-R5. <i>SESD Operating Procedure for Field Sampling Quality Control</i> , SESDPROC-011-R5.  The SESD Field Quality Manager and the Branch Quality Assurance Officers are responsible for ensuring that these requirements are met.	
<b>B9. Non-direct Measurements:</b> N/A for this category.	
<b>B10. Data Management</b> The field project leader will be responsible for ensuring that all requirements for data management are met. All data generated for this field investigation, whether hand-recorded or recorded and stored in an electronic data logger will be recorded, stored and managed according to the following procedures:  <i>SESD Operating Procedure for Control of Records</i> , SESDPROC-002-R6. <i>SESD Operating Procedures for Logbooks</i> , SESDPROC-010-R5.	



Quality Assurance Project Plan  
U.S. Environmental Protection Agency  
Science and Ecosystem Support Division  
980 College Station Road  
Athens, GA 30605

SESD Project ID No.: 17-0496  
SESD Category 3 QAPP

**SECTION C: Assessment/Oversight and SECTION D: Data Validation/Usability**

The SEDS *Field Branches Quality Management Plan* (QMP) and the SEDS Operating Procedures address the Assessment/Oversight and Data Validation/Usability elements as required. Please consult those documents for more detailed information concerning the SEDS Field Branches Quality System.

**\*\*Footnotes:** This Quality Assurance Project Plan (QAPP) has been prepared and approved according to the EPA *Requirements for Quality Assurance Project Plans* (EPA QA/R5 EPA/240/B-01/003), U.S. Environmental Protection Agency, Office of Environmental Information, Washington, DC, March 2001 (USEPA, 2001). This document will be used to ensure that the environmental data collected for this project are of the type and quality for the intended purposes. **This document is for SEDS use only.**